NEW COMBINATIONS IN *PERYMENIUM* AND *OTEIZA* *(ASTERACEAE - HELIANTHEAE)*

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The following new combinations are taken from revisionary treatments of *Perymenium* (Fay, 1973) and *Oteiza* (Fay, in preparation). Because the larger studies will be preceded in publication by treatments for Flora of Guatemala, the combinations are here validated for use in the Flora.

Perymenium grande Hemsl. var. *nelsonii* (Robins. & Greenm.) Fay, comb. nov. *P. nelsonii* Robins. & Greenm., Proc. Amer. Acad. Arts 34: 529, 1899. TYPE: MEXICO: CHIAPAS: Between San Cristobal and Teopisca, 2050-2600 m, 4 Dec 1895, *Nelson 3465* (LECTOTYPE: GH; ISOTYPE: US)

Perymenium latisquamum Blake, Contr. U.S. Natl. Herb. 22: 626, 1924. TYPE: MEXICO: CHIAPAS: Sierra de Tonalá, Sep 1913, *Purpus 6647* (HOLOTYPE: GH; ISOTYPE: UC; Photos: US (2))

Robinson and Greenman failed to definitely designate a type in publishing *P. nelsonii*. Blake's (1926) implicit choice of *Nelson 3465* as lectotype is here affirmed. The combination proposed here has been taken up by Berlin et al. (1974), although it is only now validly published.

Oteiza ruacophila (Donn. Sm.) Fay, comb. nov. *Perymenium ruacophilum* Donn. Sm., Bot. Gaz. 55: 437, 1913. TYPE: GUATEMALA: QUETZALTENANGO: Volcan Santa Maria, alt. 2500-3500 m, Jan 1896, *Nelson 3727* (HOLOTYPE: US; ISOTYPES: US (2))

Calea insignis Blake, Contr. Gray Herb. 52: 56, 1917. TYPE: GUATEMALA: QUETZALTENANGO: In deep ravines, 31 Jan 1917, *HOLWAY 817* (HOLOTYPE: GH; ISOTYPE: MO)

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LITERATURE CITED

Berlin, B., D. E. Breedlove and P. H. Raven 1974. Principles of Tzeltal plant classification. Academic Press, New York and London.

Blake, Sidney F. 1926. Asteraceae. *In:* Standley, Paul C., Trees and shrubs of Mexico. Contr. U.S. Natl. Herb. 23: 1401-1646.

Fay, John J. 1973. Revision of *Perymenium (Asteraceae - Heliantheae)* in Mexico and Central America. Unpublished doctoral dissertation submitted to the Graduate Faculty in Biology, City University of New York.